



IN THEIR OWN WORDS

Los Alamos historian **ALAN CARR** wonders if he might just have the best job at the Laboratory.

ON MANY OCCASIONS, OFTEN DURING HISTORICAL TOURS or after briefings, I've had co-workers make the comment, "Alan has the best job at the Laboratory!" Most days, that may very well be true. But what are most days like? How does one become a Laboratory historian anyway? Why does a scientific laboratory even have an historian? These are all questions I've often received, but I don't recall ever formally answering them—until now.

I started working as an historian at Los Alamos in May 2003 at the ripe, historical age of 25. I had recently finished my master's thesis on Soviet military doctrine and was lucky to have stumbled upon the job ad on the American Historical Association's web site. Virtually every time I introduced myself as an historian, I would hear some variation of the following: "You're too young to be an historian," or, "I imagined the Lab historian would be ancient and have a beard!" John C. Hopkins, former head of the Los Alamos weapons program, once quipped, "You know, the odds of winning the lottery are far better than the odds of getting your job." He was right. I feel lucky to have this unique job, and one of the reasons why is because the Lab is rich with 75 years of fascinating history.

75 years of innovation

The Los Alamos story begins in early 1943, when Nazi Germany and Imperial Japan ruled much of the globe. Los Alamos was founded to design, build, test, and help deliver the world's first nuclear weapons. Only 28 months after the Laboratory's first major technical conference, two entirely different types of nuclear weapon were successfully delivered

**THE ARCHIVES
CONTAIN ABOUT
20,000 REELS OF
MOTION PICTURE FILM,
1,000,000
PHOTOGRAPHIC NEGATIVES,
AND 8,500 VIDEOTAPES.**

in combat against the Japanese cities of Hiroshima and Nagasaki. Days later, the Japanese Government surrendered unconditionally, bringing one of history's deadliest conflicts to an abrupt and victorious conclusion.

Given this illustrious origin, it was probably my background in Russian history, specifically that of the Red Army up through World War II, that helped me secure this historian job. And I'll admit, I do have a soft spot in my heart for World War II-era books, movies, and memorabilia; my office is filled with them. However, the way that the Lab changed after the War, and how each scientific innovation it produced branched into another, is fascinating and continues to pique my interest on a daily basis.

For instance, in the 1950s, as weapons research continued in the shadow of the Cold War, Laboratory scientists began developing nuclear rocket engines to propel missiles. However, when the technical landscape changed—because miniaturized weapons could be delivered with chemical rockets—the nuclear rocket program instead began to fuel new research

in space technology. This branching evolution of innovation and technology happens again and again throughout the Lab's history.

Space research at Los Alamos has often had a dual purpose. For example, the Partial Test Ban Treaty, a diplomatic milestone between the United States and the Soviet Union, was made possible by the advent of the Los Alamos-designed Vela satellites. And though intended primarily to surveil the globe for clandestine nuclear tests, a Vela satellite serendipitously discovered gamma-ray bursts from deep space in 1967.

Computing at Los Alamos has also evolved to support many types of research. When underground nuclear testing ended in 1992, Los Alamos turned to its own expertise in computer simulation—which began with the invention of MANIAC I, built in 1952—to help with "science-based stockpile stewardship." But supercomputers enable many other types of work at the Lab, including vaccine development, climate modeling, probing the early universe, and modeling antibiotic resistance and the spread of disease.

The list of exciting science could go on and on. Los Alamos made major technical contributions to the Strategic Defense Initiative, established the public gene database GenBank, was a leader in the Human Genome Project, detected the neutrino, was a pioneer in fusion energy and quantum cryptography, and built two of the world's most powerful lasers, *Antares* and *Aurora*. For 15 years I've been reading about the achievements of the past and present, and yet there is always something new and exciting to learn.

Day in the life

When I first came to Los Alamos, I worked in the old records center. Except for my office, which overlooked the loading dock, the entire building was a vault. I spent my first several months learning the history of the Laboratory in my loading-dock office. I gradually fell in love with the rich history of the Laboratory and with my new, absolutely breathtaking home state. Sadly, I soon had to surrender my coveted window office and move inside the vault, where I shared an interior office with John Hopkins.

After I completed all the appropriate training, my predecessor Roger Meade gave me free reign to do research in the archives. Back then the plan was to write the grand history of the Laboratory's Cold War years, but for a variety of reasons, that never materialized. As I became more knowledgeable by completing less ambitious projects, I was entrusted with responding to public inquiries for information. Our team receives questions from all over the world every week. Perhaps the most common question we get is: "When did Los Alamos Scientific Laboratory become Los Alamos National Laboratory?" The answer: January 1, 1981. Easy, but perhaps not very interesting. On the other hand, John Hopkins was on the receiving end of my favorite request of all time. The Laboratory's legendary third director, Harold Agnew, who had quite a shrewd sense of humor, called John and asked: "Hey, was I at the Trinity test?" Harold explained that he was not at the world's first nuclear test, but that Luis Alvarez's memoir said otherwise. I think Harold was hoping we could



From the archives: Nuclear rockets were tested at the Nevada Test Site from the 1950s until the early 1970s. The test pictured here was significant in that it confirmed vibration was the primary cause of failure in a previous test, in which a reactor shook itself apart. These tests were important stepping stones on the road to the Phoebus-2A reactor. On June 26, 1968, the 2A ran for 12 minutes and reached a peak power of 4080 megawatts, making it the most powerful individual reactor of any type ever built.

Perhaps the most important part of my job is helping to preserve the documented history of the Laboratory. Although I'm often introduced as the Laboratory archivist, I'm not an archivist. Archivists are more important than historians, because without archivists, historians would not have access to records to manipulate. The archivist of the Laboratory is Norma Baca, and I thoroughly enjoy working with her and our media archivist, John Moore, to preserve our roughly 12,000 cubic feet of permanent records. The collections we maintain include about 20,000 reels of motion picture film, 1,000,000 photographic negatives, 8500 videotapes, and a lot of paper.

figure out how Luis had gotten the story wrong—since Harold had instead been in the South Pacific, helping to prepare combat weapons at the end of the war—but we never did figure out that mystery.

Writing history is a labor of love, but the government isn't a big fan of funding labors of love. I've also discovered most people aren't interested in reading esoteric pieces of history. For example, many years ago, I published a short biography on the first head of the Physics Division, Robert F. Bacher. You can find my book on Bacher and Bacher's obituary of J. Robert Oppenheimer at the Los Alamos History Museum gift shop. A while back, my late and excellent friend David Mullen purchased a copy of my book, which prompted the cashier to state, "I've sold several books by Bacher, but never this book about him." Such is the nature of much historical writing, and mine is no exception.

Although few have really sat down to read my writings, many people have attended my historical talks. Public speaking has become a favorite part of the job, but it hasn't always been that way. Back in 2004, when I had been on the job less than a year, I did my first on-camera interview for a History Channel

Where do our historical records come from? Typically they're transferred to us from originating organizations, but we've retrieved records from basements, garages, automobile trunks, etc. (We make house calls!) Many people assume we continually dwell on the past in the archives, but that's far from true. When we identify records for preservation, we're thinking ahead. What might be useful for the technical staff five, ten, or 50 years into the future? Indeed, some of our oldest records remain our most programmatically valuable.

Even as an historian, I often take our history for granted. Our world-changing institution has captured the imagination of people around the world since our existence became publicly known in August of 1945. We regularly work with the news media, film and documentary makers, writers, academics, and students. I've had the opportunity to spend time with Academy Award winners, Pulitzer Prize winners, cabinet-level secretaries, Nobel laureates, U.S. senators, and even the founder of Microsoft. The reason we at Los Alamos are perennially in the spotlight is because of our history. We are the name brand: we are the Laboratory they make television shows and movies about. And we continue to make history! That's great news, because I'll never run out of history to preserve and showcase.

So, do I have the best job at the Laboratory? Like everyone else, I have to take a lot of training and work under stringent procedures. And spelunking in potentially hantavirus-infested storage sheds and preparing inventories to ship classified records isn't exactly living the life of Indiana Jones, but I have no gripes—except, perhaps, that a window office would be nice. The best thing about being the Los Alamos historian is the hugely diverse set of people I get to know. I meet people from all over the Laboratory, the nation, and the world. Almost every day I meet a new person, learn a new factoid, enjoy a new adventure, and get paid to do it. I don't know if I have the best job at our amazing institution, but it's pretty phenomenal. I certainly don't plan to give it up anytime soon.

—Alan Carr

I GET TO KNOW PEOPLE FROM ALL OVER THE LABORATORY, THE NATION, AND THE WORLD.

program called *Man, Moment, Machine*. I was so nervous that I had to take a vomit break in the middle of the interview. I'm not a natural speaker. Is anyone? But as I mastered my subject and learned from many, many, many mistakes, I started to enjoy speaking. I still speak beyond my allotted time and tell cringe-worthy jokes, but some habits are difficult to break.